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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/785,372

02/24/2004

Christian D. Kasper

98-C-022 (52007-CON)

8948

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08/24/2005

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EXAMINER

BOAKYE, ALEXANDER O

ART UNIT

PAPER NUMBER

2667

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/785,372

Applicant(s)

KASPER ET AL.

Examiner

ALEXANDER BOAKYE

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 38-68 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 45-56 and 62-66 is/are allowed.
- 6) ☒ Claim(s) 38,42,44,57-59,61 and 67 is/are rejected.
- 7) ☐ Claim(s) 39-41,43,60 and 68 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 38, 42, 44, 57, 58, 59, 61 and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bustini et al.(US Patent # 5,313,454) in view of Caldara et al. (US Patent # 5,822,540).

Regarding claim 38, Bustini teaches a method for controlling flow of network data arranged in frames and minimizing congestion, comprising the steps of: generating a status error indicator within a buffer of a network device indicative of a frame overflow within the buffer (lines 9-17 of the abstract; column 11, lines 35-41); in response to the status error indication, generating an early congestion interrupt to a host processor indicative that a frame overflow has occurred within the buffer (column 11, lines 21-58). Bustini differs from the claimed invention in that Bustini does not disclose generating instructions from the host processor to buffer for discarding the incoming frame that has caused the frame overflow within the buffer.

However, Caldara teaches generating instructions from the host processor to buffer for discarding the incoming frame that has caused the frame overflow within the buffer (column 3, lines 21-28). One of ordinary skill in the art would have been motivated to incorporate a buffer for discarding the incoming frame that has caused the frame overflow within the buffer in order to reduce congestion. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a buffer for discarding the incoming frame that has caused the frame overflow within the buffer such as the one taught by Caldara into the communication network of Bustini with the motivation being that it provides capability for the system to overcome congestion, thus enhancing efficiency.

Regarding claim 42, Bustini teaches that the status error indicator is generated by generating a status error bit (see lines 9-17 of the abstract).

Regarding claims 44 and 61, Bustini teaches that the step of generating the status error indicator within the buffer further comprises the step of setting an overflow bit within the buffer indicative of an overflow condition (see lines 9-17 of the abstract; column 11, lines 35-41).

Regarding claim 57 and 58, Bustini teaches an apparatus for controlling flow of network data arranged in frames and minimizing congestion comprising; a buffer (; a memory having an interrupt register and early notification bits that are set in response to a status error indicator corresponding to an overflow within the buffer (column 17, lines 41-42; column 11, lines 21-58); a host processor for receiving an early congestion interrupt from the memory (the claimed host processor is resident in node c of Fig. 7;

column 11, lines 21-58). Bustini differs from the claimed invention in that Bustini does not disclose generating instructions to buffer to discard the incoming frame that has caused the frame overflow within the buffer.

However, Caldara teaches generating instructions to the buffer for discarding the incoming frame that has caused the frame overflow within the buffer (column 3, lines 21-28). One of ordinary skill in the art would have been motivated to incorporate a buffer for discarding the incoming frame that has caused the frame overflow within the buffer in order to reduce congestion. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a buffer for discarding the incoming frame that has caused the frame overflow within the buffer such as the one taught by Caldara into the communication network of Bustini with the motivation being that it provides capability for the system to overcome congestion, thus enhancing efficiency.

Regarding claim 59, Bustini teaches that the status error indicator comprises a status error bit (lines 9-17 of the abstract).

Regarding claim 67, Bustini teaches a network device for controlling network data congestion, comprising: means for generating a status error indicator within a buffer of a network device indicative of a frame overflow within the buffer (lines 9-17 of the abstract; column 11, lines 35-41); means for reading the status error indicator (lines 14-17 of the abstract) and, in response, generating an early congestion interrupt to a host processor indicative that a frame overflow has occurred within the buffer (column 11, lines 21-58). Bustini differs from the claimed invention in that Bustini does not

disclose generating instructions from the host processor to buffer for discarding the incoming frame that has caused the frame overflow within the buffer.

However, Caldara teaches generating instructions from the host processor to buffer for discarding the incoming frame that has caused the frame overflow within the buffer (column 3, lines 21-28). One of ordinary skill in the art would have been motivated to incorporate a buffer for discarding the incoming frame that has caused the frame overflow within the buffer in order to reduce congestion. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a buffer for discarding the incoming frame that has caused the frame overflow within the buffer such as the one taught by Caldara into the communication network of Bustini with the motivation being that it provides capability for the system to overcome congestion, thus enhancing efficiency.

Allowable Subject Matter

2. Claims 39, 40, 41, 43 and 60, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 45-51, 52-56 and 62-66 are allowable.

The following is a statement of reasons for the indication of allowable subject matter: As to claims 45-51, the prior art of record does not teach enhancing the servicing of frames received within the buffer by one of either increasing the number of

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words of a memory burst size or modifying the time-slice of other active processes. As to claims 52-56, the prior art of record does not teach processing the interrupt and setting at least one early congestion notification bit within an interrupt register of the memory. As to claims 62-66, the prior art of record does not teach means for enhancing the servicing of received frames by one of either increasing the number of words of the memory burst size or modifying the time-slice of other active processes.

Response to Arguments

3. Applicant's arguments with respect to claims 38-68 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Boakye whose telephone number is (571) 272-3183. The examiner can normally be reached on M-F from 8:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham, can be reached on (571) 272-3179. The Central Fax number is (371) 273-8300. Any inquiry of general nature or relating to the status of this application or proceeding should be directed to Electronic Business Center numbers 866-217-9197 and 703-305-3028/

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Alexander Boakye

Patent Examiner

AB

8/20/05

KWANG BIN YAO
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read 'Kwang Bin Yao', written in a cursive style.